A Big Earth Data Platform for Three Poles

**Grassland yield estimation product in Qinghai-Tibet Plateau (2000-2019)**

1、Description

Grassland yield is an important ecological parameter of grassland, which is an important basis for monitoring grassland productivity, Estimating Grassland reasonable carrying capacity and evaluating grassland carrying status. Based on the grassland data collected in July and August, MODIS NDVI, precipitation and terrain parameters, multivariate statistical equations were established to invert the total grass yield (kg / hm2) and edible grass yield (kg / hm2). The time series is 2000-2019, and the spatial resolution is 250 meters. Based on the data of 50 quadrats distributed in Sichuan, Tibet, Qinghai, Gansu and other regions, the results show that the average absolute error of total grass yield is 734.75kg/hm2, and the average relative error is 24.85%. The average absolute error of edible grass yield is 715.81kg/hm2, and the average relative error is 30.52%. Due to the complexity of grassland types, high spatial heterogeneity and scale mismatch between the measured grassland quadrats and MODIS image pixels, this accuracy can meet the requirements of remote sensing monitoring of grassland in large areas. This data set can analyze the spatiotemporal variation characteristics of grassland productivity in the Qinghai Tibet Plateau, evaluate the carrying capacity characteristics of grassland in the Qinghai Tibet Plateau, and extract the overgrazing areas, which has important application value for ecological protection, monitoring and early warning of the Qinghai Tibet Plateau.

2、Keywords

Theme：Grassland,Forest stock volume,Terrestrial Surface Remote Sensing,Grassland  
Discipline：Terrestrial Surface  
Places：Qinghai Tibet Plateau  
Time：2000-2019

3、Data details

1.Scale：None

2.Projection：WGS84

3.Filesize：18600.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：43.887225 | - |
| west：73.132818 | - | east：105.732465 |
| - | south：21.709277 | - |

5、Time frame:2000-06-30 16:00:00+00:00--2019-12-30 16:00:00+00:00

6、Reference method

References to data:

LIU Bintao. Grassland yield estimation product in Qinghai-Tibet Plateau (2000-2019). A Big Earth Data Platform for Three Poles, doi:10.11888/Ecolo.tpdc.2715142021

References to articles:

7、Supporting project information

Second Tibetan Plateau Scientific Expedition Program

8、Data resource provider

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